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CLAIM AMENDMENTS

1. (Previously presented) A reconfigurable frequency selective surface (FSS) comprising:

a plurality of conducting patches supported on a first surface of a dielectric material; and

a plurality of switches, each switch electrically interconnecting at least two of the plurality of conducting patches when the switch is selected,

wherein a first ensemble of switches is selectable so as to provide a first configuration of electrically interconnected conducting patches, and

a second ensemble of switches is selectable so as to provide a second configuration of electrically interconnected conducting patches,

the reconfigurable FSS being part of an artificial magnetic conductor (AMC) ground plane of an antenna,

the AMC further including the dielectric material and an electrically conducting sheet on a second surface of the dielectric material.

2. (Currently Amended) The reconfigurable FSS of claim 1, wherein the first configuration of electrically interconnected conducting patches provides a first resonance frequency, and

the second configuration of electrically interconnected conducting patches provides a second resonance frequency,

each switch being equivalent to a closed circuit when the switch is selected, each switch being equivalent to an open circuit when the switch is not selected,

switches being selectable using electrical signals applied to the switches, the electrical signals not being applied to the conducting patches.

3. (Original) The reconfigurable FSS of claim 1, wherein the first configuration of electrically interconnected conducting patches comprises a repeated unit cell pattern of electrically interconnected conducting patches.

4. (Original) The reconfigurable FSS of claim 3, wherein the first configuration of electrically

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interconnected conducting patches comprises a two-dimensional array of unit cell patterns of electrically interconnected conducting patches.

5. (Original) The reconfigurable FSS of claim 1, wherein the plurality of conducting patches is disposed in a square or rectangular grid pattern on the first surface of the dielectric material.

6. (Original) The reconfigurable FSS of claim 1, wherein each conducting patch has a square or rectangular shape.

7. (Original) The reconfigurable FSS of claim 1, wherein the plurality of conducting patches is arranged in a plurality of fractal arrays.

8. (Previously Presented) The reconfigurable FSS of claim 1, wherein the FSS has a doubly periodic structure.

9. (Currently Amended) A reconfigurable frequency selective surface (FSS) comprising:

a plurality of conducting patches, the conducting patches being supported on a first surface of a dielectric material ; and

a plurality of switches, each switch electrically interconnecting at least two of the plurality of conducting patches when the switch is selected,

the conducting patches being selectively electrically interconnected in an electrical interconnection configuration,

the electrical interconnection configuration comprising a plurality of selected switches, each switch acting as a closed circuit when selected, and as an open circuit when not selected, switches being selected using electrical signals applied to the switches, the electrical signals not being applied to the conducting patches,

wherein a resonance frequency of the frequency selective surface is adjustable through a modification of the electrical interconnection configuration,

the reconfigurable FSS being part of an artificial magnetic conductor (AMC),

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the AMC further including the dielectric material and an electrically conducting sheet substantially adjacent to a second surface of the dielectric material,

the electrically conducting sheet being a ~~continous~~ continuous sheet opposing the plurality of conducting patches.

10. (Original) The reconfigurable FSS of claim 9, wherein the FSS provides a first resonance frequency corresponding to a first electrical interconnection configuration, and a second resonance frequency corresponding to a second electrical interconnection configuration,

wherein the first electrical interconnection configuration and the second electrical interconnection configuration are electrically selectable.

11. (Original) The reconfigurable FSS of claim 10, wherein the first resonance frequency is an integer multiple of the second resonance frequency.

12. (Previously Presented) The reconfigurable FSS of claim 9, wherein the dielectric material is a dielectric layer.

13. (Currently Amended) The reconfigurable FSS of claim 12, the electrically conducting sheet [[is]] being supported by the second surface of the dielectric layer.

14. (Previously Presented) The reconfigurable FSS of claim 9, wherein the FSS has a doubly periodic structure.

15. (Original) The reconfigurable FSS of claim 9, wherein the modification of the electrical interconnection configuration is achieved by providing electrical signals to an array of switches.

16. (Previously Presented) The FSS of claim 9, wherein the artificial magnetic conductor (AMC) is part of an electromagnetic reflector.

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17. (Currently Amended) The FSS of claim 9, wherein the artificial magnetic conductor (AMC) is part of an electromagnetic ~~reflector~~ absorber.

18. (Previously Presented) The FSS of claim 9, wherein the artificial magnetic conductor (AMC) is a ground plane for an antenna.

19. (Currently Amended) An artificial magnetic conductor (AMC), the AMC comprising:

a dielectric material having a first surface and a second surface;

a plurality of electrically conducting patches supported by the first surface of the dielectric material; and

an electrically conducting sheet substantially adjacent to the second surface of the dielectric material, the electrically conducting sheet being a ~~continous~~ continuous sheet opposing the plurality of conducting patches,

wherein the electrically conducting patches have an electrical interconnection configuration comprising electrical switches,

the electrical interconnection configuration being reconfigurable through selection of one or more of the electrical switches so as to change a resonance frequency of the reconfigurable AMC,

the reconfigurable AMC behaving as a magnetic conductor at the resonance frequency,

wherein the electrical switches each comprise a transistor.

20. - 22. (Canceled)

23. (Currently Amended) The AMC of claim 19, wherein the electrical interconnection configuration comprises a repeated pattern of unit cell interconnection configurations.

24. (Currently Amended) The AMC of claim 19, wherein the electrical interconnection configuration is reconfigurable using electrical signals applied to the transistors.

25. (Currently Amended) The AMC of claim 19, wherein the electrical interconnection

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configuration for incident electromagnetic radiation is reconfigurable through a change in the frequency of the incident electromagnetic radiation.

26. (Currently Amended) ~~An artificial magnetic conductor (AMC), the~~ The AMC of claim 19, comprising [[:]]

~~a dielectric material having a first surface and a second surface;~~

~~a plurality of electrically conducting patterns supported by the first surface of the dielectric material; and~~

~~an electrically conducting sheet substantially adjacent to the second surface of the dielectric material, the electrically conducting sheet being a continous sheet opposing the plurality of conducting patches,~~

~~the AMC comprising~~ a plurality of regions, the resonance frequency of at least one region being independently adjustable

~~the at least one region of the AMC behaving as a magnetic conductor at the resonance frequency~~.

27. (Previously Presented) The AMC of claim 26, wherein the resonance frequency of each region is independently adjustable.

28. - 30. (Canceled)

31. (Currently Amended) The AMC of claim [[29]] 26, wherein the AMC is a ground plane of an antenna.